

REMARKS

By this amendment, Applicants have amended page 7, line 26 of the specification to correct the informality noted by the Examiner in numbered section 1 of the Office Action. Applicants have also added claims 11-24 to define further aspects of the present invention. Claims 11-13, 16-18 and 21-23 are supported by Figures 1-3 and the description of page 7, lines 10-15 of Applicants' specification. Claims 15 and 20 are supported by Figures 1-3 and the description at, e.g., page 7, lines 1-4 and page 8, lines 9-17 of Applicants' specification. Claims 14, 19 and 24 are supported by Figures 1-3 and the disclosure at, e.g., page 7, lines 5-10 and 16-21 of Applicants' specification.

On the Office Action Summary Page and at the top of page 2 of the Office Action, the Examiner acknowledges a "claim for priority." However, it is noted that Applicants have not claimed priority of prior Japanese application number 2001-228846 (see the Japanese Language Declaration filed June 2, 2004). Accordingly, a certified copy of Japanese Application No. 2001-228846 has not been submitted.

In view of the foregoing amendment to page 7, line 26 of the specification, reconsideration and withdrawal of the objection to the disclosure in numbered section 1 of the Office Action are requested.

Claims 1, 3, and 5-9 stand rejected under 35 U.S.C. 102(b) as allegedly anticipated by U.S. Patent 4,070,166 to Emanuelsson. Claims 2 and 10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Emanuelsson, while claim 4 also stands rejected under 35 U.S.C. 103(a) as being unpatentable over Emanuelsson. Applicants traverse these rejections and request reconsideration thereof.

The present invention relates to oil injected screw compressor in which oil is injected into working gas to cool the working gas, the compressor including a male rotor arranged substantially in a horizontal direction, a female rotor arranged in parallel to the male rotor and a main body casing of a compressor having a rotor casing for containing these rotors. It is an object of the present invention to make the oil injected screw compressor compact in size. See, e.g., page 2, lines 12-14 of Applicants' specification. In order to achieve this object, Applicants provide a cylindrical oil separator under the rotor casing.

For example, as defined in independent claim 1, and is shown by way of example only in the figures, an inner cylindrical wall 5 is located under the rotor casing 2d, the inner cylindrical wall having a center axis substantially in a vertical direction. See, e.g., page 7, lines 5-10 of Applicants' specification. An outer wall 2a is arranged substantially in a concentric position with the inner wall. A lower casing 6 is provided hermetically joined to the outer wall 2a, so as to separate the oil from the working gas.

As set forth in independent claim 3, and as shown by way of example only in the figures, an outer cylindrical wall 2a is located under the rotor casing 2d and has a center axis substantially in a vertical direction. See, e.g., page 7, lines 16-18 of Applicants' specification. An inner wall 5 is arranged on an inner circumferential side of the outer wall 2a and has an outer diameter smaller than an inner diameter of the outer wall 2a. The working gas containing the oil is guided into a clearance between the inner wall 5 and the outer wall 2a.

As set forth in independent claim 5, and as shown by way of example only in the figures, an inner cylindrical wall 5 is located under the rotor casing 2d and has a center axis substantially in a vertical direction, while an outer wall 2a is arranged

substantially in a concentric position with the inner wall 5. As shown by way of example only in Figure 3, the first passage 4 is provided for guiding the working gas compressed by the male rotor and the female rotor to a second passage 2b formed between the outer wall 2a and the inner wall 5.

The Emanuelsson patent discloses a method and device for draining liquid from a secondary separable of a compressor plant. As shown in the figure of Emanuelsson, compressed gas is conducted from the outlet 4 via a conduit 5 to a container 6. As shown at 7, the gas is introduced eccentrically into the container. The container 6 constitutes a primary separator in which separated liquid is collected on the bottom. A filter 8, which functions a secondary separator and is provided with a bottom 9 is mounted in the upper part of the container 6. The compressed gas is conducted through the filter 8 to a delivery conduit 10. However, the container 6 of Emanuelsson is not under the rotor casing of the compressor 1. In this connection, the common definition of the word "under" as it is used in the context of the claims in the application is "below or beneath so as to be overhung, surmounted, covered, protected, or concealed by." While the container 6 maybe shown in the figure of Emanuelsson at a level "below" the compressor 1, the container 6 is not provided under the compressor 1. Therefore, neither the outer wall of the container 6 nor the inner wall noted by the Examiner is provided under the rotor casing of the compressor 1, as presently claimed. Accordingly, the Emanuelsson patent does not anticipate the presently claimed invention.

By providing the oil separator of the present invention under the rotor casing, the footprint of the oil injected screw compressor can be made much smaller than the device described in Emanuelsson. Accordingly, the oil injector screw compressor of the present invention can be made compact in size. Such is neither

disclosed nor suggested by Emanuelsson. Accordingly, the presently claimed invention is patentable over Emanuelsson.

Applicants note that the Examiner has cited a number of documents as being pertinent to Applicants' disclosure. However, since these documents were not applied nor rejecting claims formally in the application, further discussion of these documents is deemed unnecessary.

In view of the foregoing amendments and remarks, favorable reconsideration and allowance of all of the claims now in the application are requested.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 500.43499X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

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